

**ROGER GROSSWALD**  
**FOSTER-CAVINESS, INC.**  
**10810 WITHERS COVE PARK ROAD**  
**CHARLOTTE, NORTH CAROLINA 28278**  
**TEL: 704-819-0654 E-MAIL: RRG8@ATT.NET**

*Tony*

January 17, 2013

NCDENR  
Division of Waste Management  
217 West Jones St.  
Raleigh, North Carolina 27603  
Attention: Mr. Tony Gallager

JAN 21 2013

Dear Tony:

I hope this finds you well and looking forward to a new year.

Here is our application for the composting system we wish to add to our vermiculture operation.

Please let me know of anything else you might need.

I want to thank you for all your support and assistance through the last year.

Warmest regards,



Roger Grosswald

Enclosures

**Request for Modification of Solid Waste Composting Demonstration of  
SWCD-60-02 Dated June 30, 2011, Located at 10810 Withers Cove Park Road  
in Charlotte, North Carolina**

**Basis for Modification**

Foster-Caviness has been operating a Vermiculture Demo project to control the freight waste (all pre-consumer or vegetable) in order to eliminate disposing of food waste into the landfill.

In our application for the Pilot Program we stated that we would eventually use the considerable amount of food grade cardboard generated by Foster-Caviness's operation in the process.

It has become apparent that our successful vermicompost operation has some difficulty dealing with the high moisture content of our vegetable feedstock. It is also apparent that we cannot utilize a large portion of our cardboard waste. Also, we need to eliminate the possibility of weed seeds surviving the vermicompost process.

Therefore, we wish to add a demo compost project consisting of an aerated static pile composting system.

**METHODOLOGY**

The aerated static pile composting system will consist of two self-contained steel bins supplied by Advanced Composting Technologies, LLC. These two test bins are 12' X 8' each and are water tight composting processes with built in systems for aeration and the collection of leachate into collection containers. This will assure no leachate can move into the environment. The systems will be covered by hoop construction and plastic sheet roofing to assure no rain can enter the system.

**WASTE STREAM**

The annual capacity is 55,800 pounds. The individual stage capacity for ten yard roll off is 3,000 pounds of wet food waste. 1st stage cycle time is 20 days. We will build up to 155 pounds of food waste per day X 360 days.

**THIS PLAN INCLUDES**

This plan will enable Foster-Caviness to utilize a much larger quantity of its waste cardboard as a pure carbon source. It will enable us to control the composting process and control the excess moisture. It will benefit the on-going vermiculture project by resulting in much more control and uniformity of our feed stock. It will enable us to utilize a much greater quantity of food waste and cardboard, thereby improving the

quality of the vermicompost. It will eliminate any seeds that survive the vermicomposting process.

The compost will be used to feed our growing worm population and produce a more reliable and greater source of our end product of worm castings. It will speed up the entire process by composting the food waste and thereby making it much more suitable as feedstock for the worms. We will have a more reliable and consistent product to offer for sale to commercial composters and the local retail market as well as local farmers.

### **Record Keeping**

Records will be kept of all data including weight of food waste, moisture content, PH, weight or volume of cardboard and temperature.

### **Testing**

A waste analysis will be conducted by the North Carolina Department of Agriculture and consumer services. The analysis will be used to detect pathogens and foreign matter before sale of castings or compost. The levels of pathogens will comply with standards set by the EPA.

Worm castings and compost will be stored according to the rules of the controlling agency.

### **Site**

The site of this aerated static pile composting system will be beside the already permitted vermiculture operation. This site is located in the middle of Foster-Caviness's seven and one-half acre site and is at least 100 yards from any boundary. See Appendices A & B

### **Project Personnel**

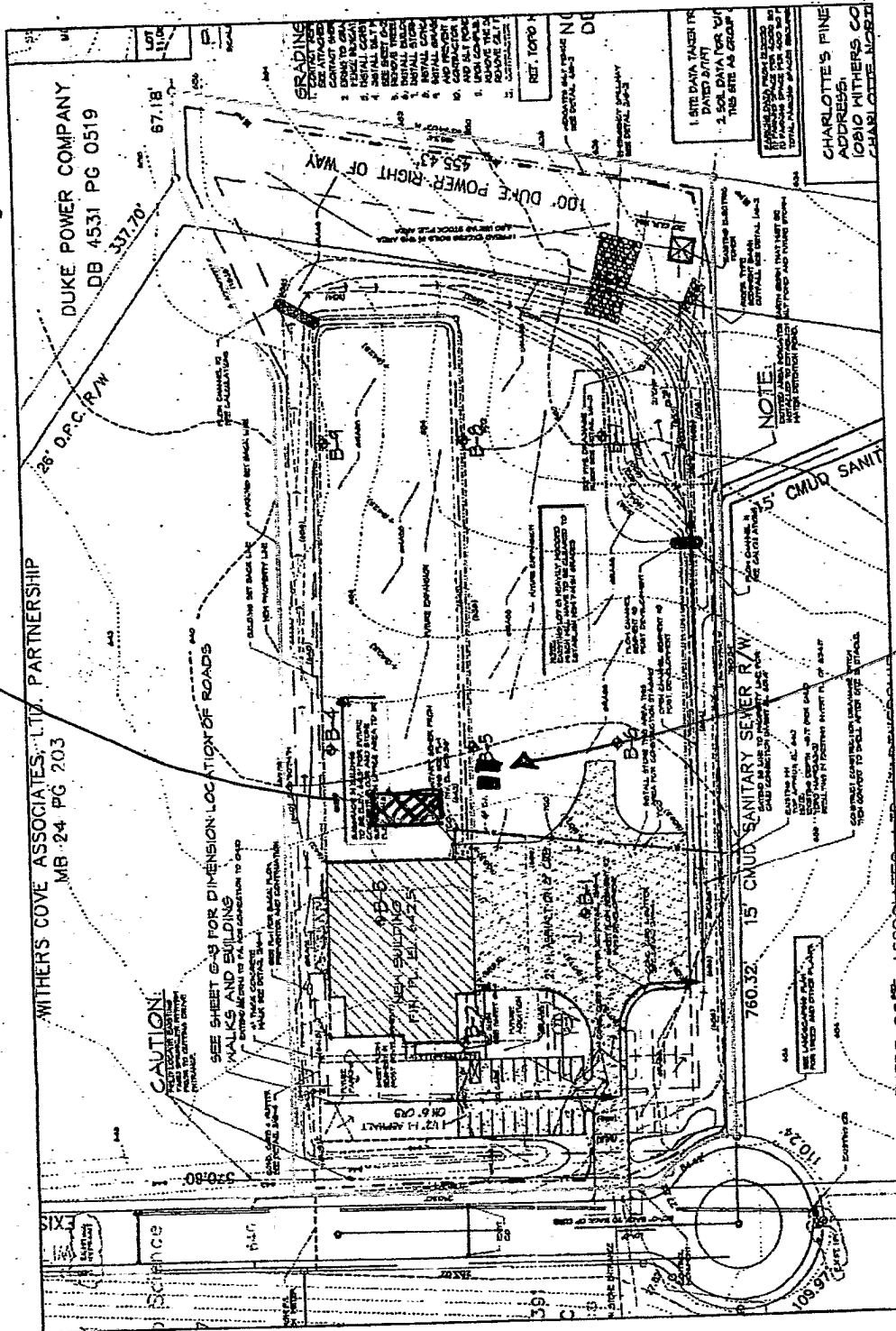
<b>Jeff Gorelick</b>	<b>Vice President of Foster-Caviness</b>
<b>Roger Grosswald</b>	<b>Partner, RJL Associates Project Co-Ordinator and Manager</b>
<b>Project Location:</b>	<b>Foster-Caviness/Charlotte 10810 Withers Cove Park Charlotte, North Carolina 28278</b>
<b>Contact:</b>	<b>Roger Grosswald (704) 819-0654 4242 Town and Country Drive Charlotte, North Carolina 28226</b>

## **End of Project**

A report will be completed and presented to the Department of Waste Management on the results of the project.

Upon the successful completion of the Demo Project we anticipate trading in the test bins and (with the proper application to NCDENR) building a larger permanent facility similar to the system provided by Advanced Composting Technologies located at Appalachian State University.

LOCATION PRESENT  
OF VERMICOMPOSTING  
BUILDING 20W x 41L x 10H  
320SF



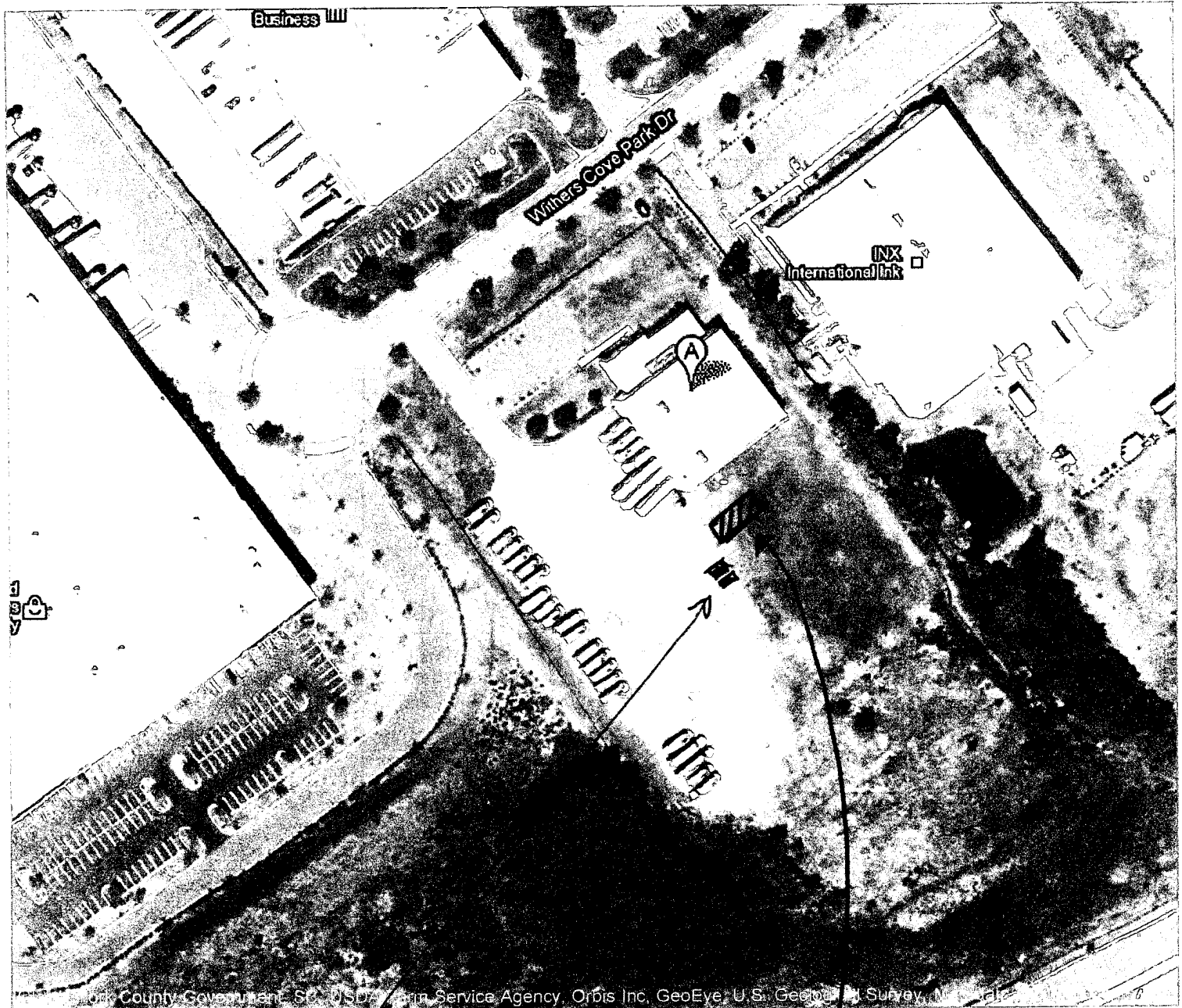
## SITE PLAN

Note: Subject outlined in red.

Google maps

B

To see all the details that are visible on the screen, use the "Print" link next to the map.



LOCATION OF REQUESTED  
AERATED STATIC PILE  
ZEN SYSTEM

EXISTING  
VERMI  
COMPOSTING  
FACILITY

## Gallagher, Tony

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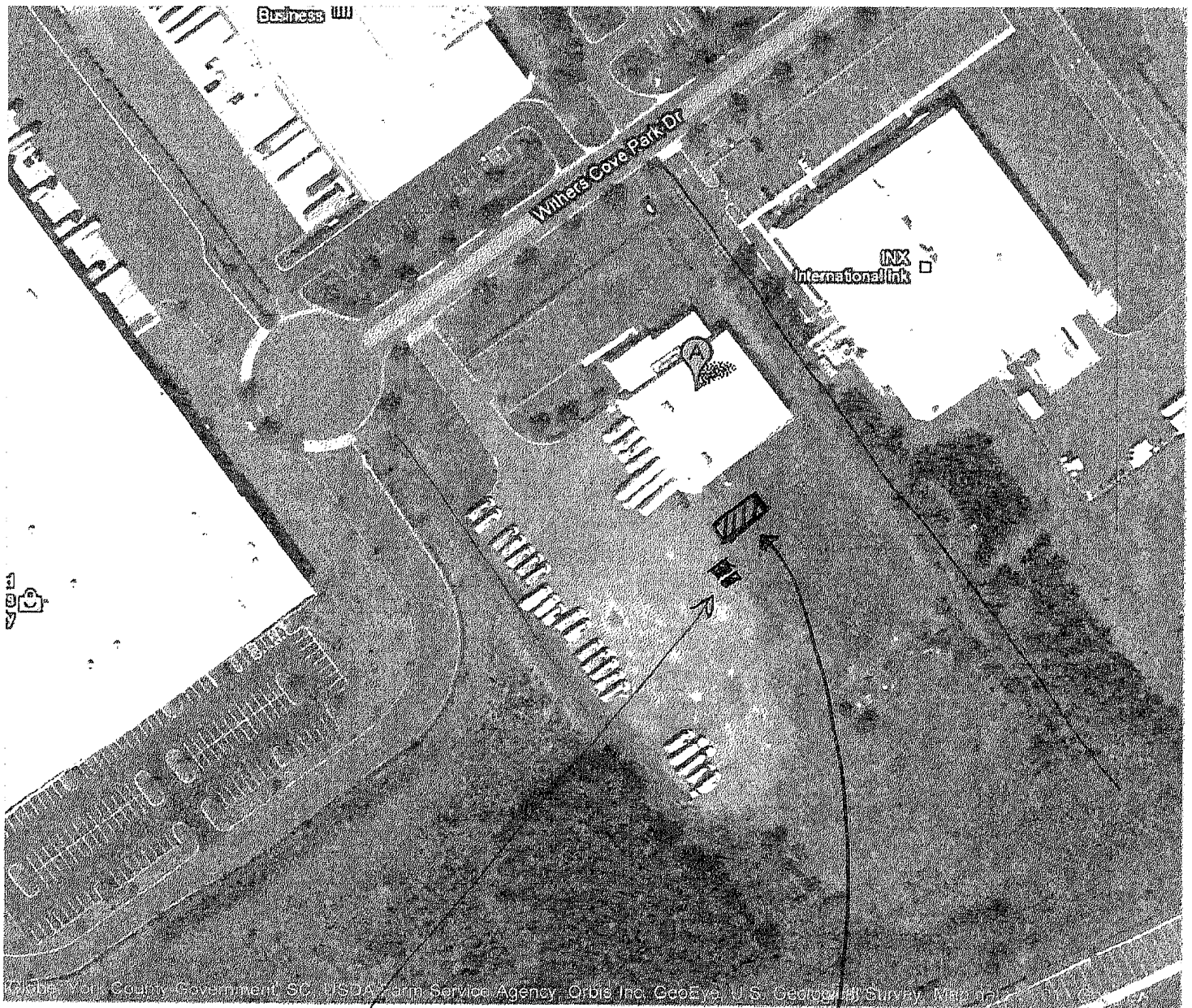
**From:** Roger Grosswald [rrg8@att.net]  
**Sent:** Tuesday, December 18, 2012 4:17 PM  
**To:** Gallagher, Tony  
**Cc:** Roger Grosswald; Jeff Gorelick  
**Subject:** Addition to our Demo Permit SWCD-60-02

Hi, Tony. I hope you are doing well. I'm following up on our conversation of a few weeks ago about our test of an aerobic static pile composting system to compost food waste and feed it to the worms in our vermiculture Demo-Permit project. We hope to have this system in the next few weeks. I want to apply for an addition to our Demo-Permit which is good until June 1st. We will apply for Permanent Status on the vermiculture composting by March 1st 2013. I want to make sure our request to permit the Aerated Static Pile Demo has everything you want. We will be putting it right next to the existing worm farm which is in the center of Foster-Caviness' 7 1/2 acre property. I will include a site plan showing its location, but it should be no problem since it is more than 250 feet from the closest boundary and is right where our permitted project is. We will give all dimensions and capacities. Any water or leachate will be contained within a tank which is part of the closed system. We will be using our vegetable waste and cardboard(carbon source) from our own shipping cartons. If all goes well we should be approaching 95% reduction of all food and cardboard waste, completely recycled into compost and then into worm castings. We will cover the project with a heavy duty tarp and no outside water will be allowed into the system. When we have proved the concept we will build a permanent roof over the new system we will then put in place(with a new permit). This system is like the one Danny's Dumpster has installed in Asheville and we will want to build a system(from the same company) like the one currently operating at Appalachian State in Boone which should be perfect for us. Please let me know what else I should cover in my request so I will be sure to include everything the first time. I want to thank you very much for all your help so far and also, for your support. We really appreciate how much you must have worked this past year to come up to speed on all the projects. I know especially well that you did your homework on Vermiculture and we appreciate you. Please let me know anything else I should cover. Unless you instruct me differently I will apply under the current permit number. Warmest regards, Roger Grosswald, for Foster-Caviness, Charlotte, NC. My cell# if you need it: 704 819-0654

Google maps



To see all the details that are visible on the screen, use the "Print" link next to the map.



LOCATION OF REQUESTED  
AERATED STATIC PILE  
ZBN SYSTEM

EXISTING  
VERMICOMPOSTING  
FACILITY



## Gallagher, Tony

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**From:** Chandler Cummins [cc@advancedcomposting.com]  
**Sent:** Friday, February 22, 2013 8:32 AM  
**To:** Gallagher, Tony  
**Cc:** 'Jeff Gorelick'; 'Roger Grosswald'  
**Subject:** Blower hp

Tony,

The compressor/ blower is a 1/3 hp.

Chandler Cummins  
Construction Manager  
Office (828) 665-8600  
Cell (828) 674-8287  
email; [cc@advancedcomposting.com](mailto:cc@advancedcomposting.com)



## Gallagher, Tony

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**From:** Chandler Cummins [cc@advancedcomposting.com]  
**Sent:** Monday, February 04, 2013 2:34 PM  
**To:** Gallagher, Tony  
**Cc:** 'Jeff Gorelick'; 'Roger Grosswald'; 'ronald Howard'  
**Subject:** Foster-Caviness Food waste compost project  
**Attachments:** BACK PRESSURE AND FLOW RATE GRAPHS\_Rev1.pdf; Foster Caviness Bin cover.JPG

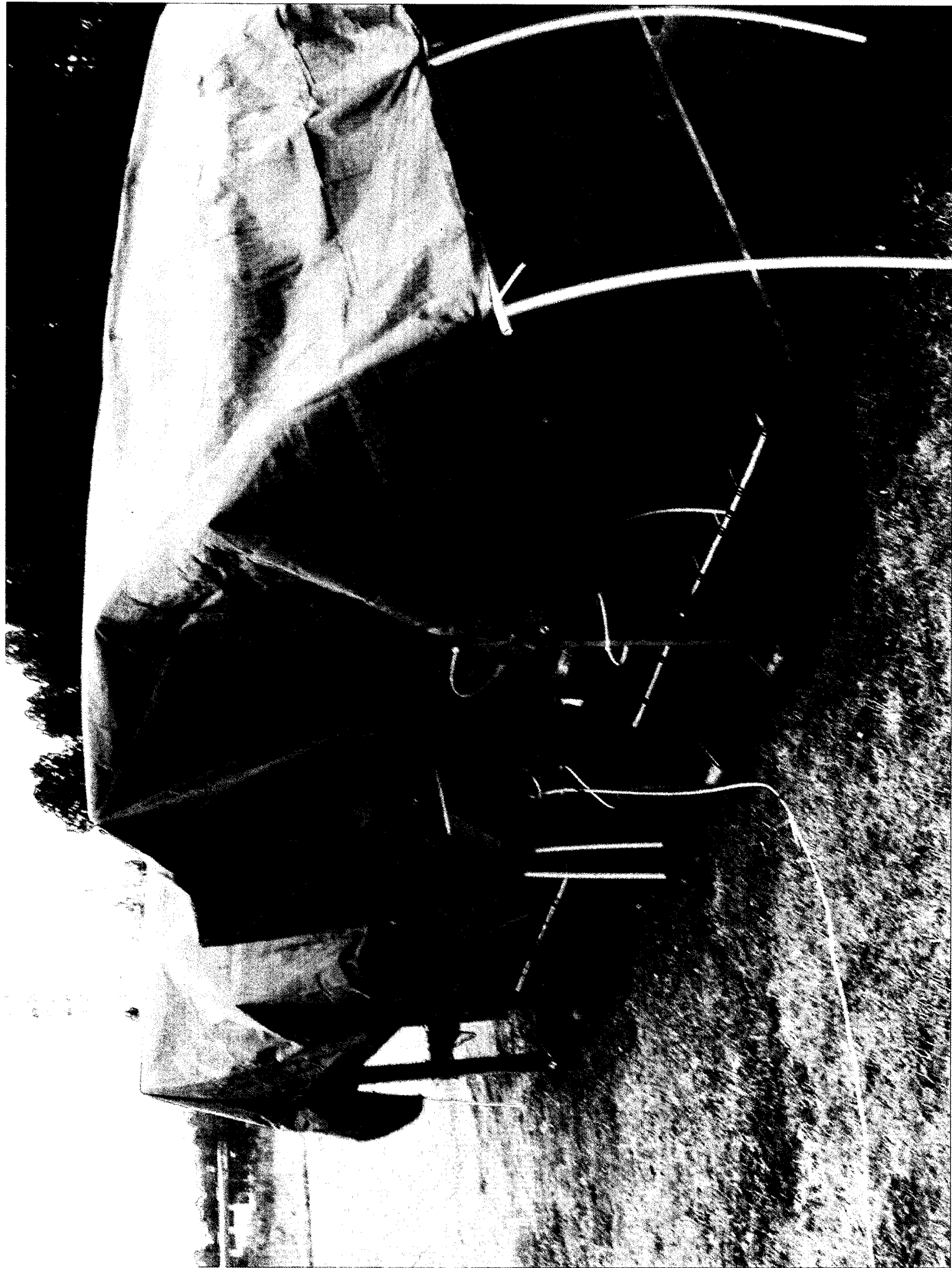
Mr. Gallagher,

The demo units are 10 cu. Yard roll offs. They have 8 pipes per unit at 10 holes/ pipe using a .025" orifice totaling 80 / bin. The blowers performance is represented in the attached flow chart. The leachate system drains to the rear of the bin. The attached picture shows the rear of the tank. The system that we are installing for this trial is a small system that we have developed for our small animal composters and works great. A 40 gal. transfer tank will be installed in between the two bins on the rear end of the bins. The tank will automatically pump to the mix bin and moisture levels are driven off with the constant aeration of the bins. We will have an alarm installed in the case of power or pump failure and the overflow to city water treatment. This is a temporary 30 day trial for foster-caviness. If they decide the system works well for them we would install a permanent leachate collection system and facility like Dannys' Dumpster in Asheville or ASU's in Boone.

If you need any further information. Please contact me on my cell or email. I will be traveling through Thursday of this week.

Chandler Cummins  
Construction Manager  
Office (828) 665-8600  
Cell (828) 674-8287  
email; [cc@advancedcomposting.com](mailto:cc@advancedcomposting.com)





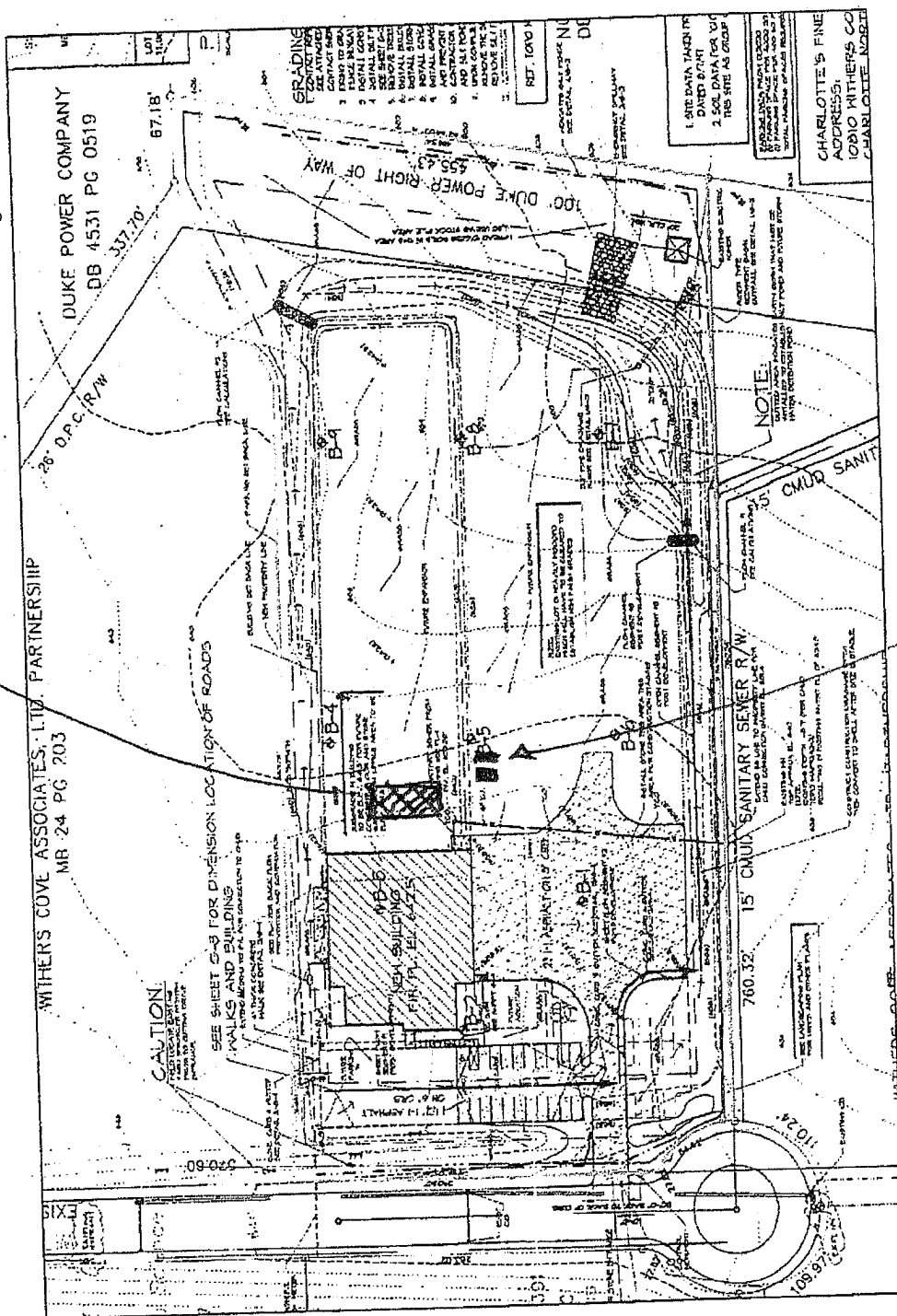
(A)

CHARLOTTE'S FINEST PRODUCE BUILDING, CHARLOTTE, NC

### DESCRIPTION AND ANALYSIS OF THE IMPROVEMENTS

LOCATION PRESENT  
of VERMIL COMPOSTING  
BUILDING 20W X 41L X 10H  
800SF

LOCATION OF REQUESTED  
GENERATED STATE FILE 2 BIN  
SYSTEM



# SITE PLAN

Note: Subject outlined in red.